CEREAL RUST BULLETIN

Report No. 2

April 18, 2001

Issued by:

Cereal Disease Laboratory
U.S. Department of Agriculture
Agricultural Research Service
University of Minnesota
1551 Lindig St, St. Paul, MN 55108-6052

(612) 625-6299 FAX (651) 649-5054 markh@cdl.umn.edu For the latest cereal rust news from the field, subscribe to the cereal-rust-survey mail list. To subscribe, send an email message with the word *subscribe* in the message body (not subject line) to: cereal-rust-survey-request@coafes.umn.edu

Reports from this mail list as well as all Cereal Rust Bulletins are maintained on the CDL website (http://www.cdl.umn.edu).

- Wheat leaf rust is very light in the southern U.S.
- Wheat stripe rust is severe in central Texas and southern Louisiana.
- Oat crown rust is light this year throughout much of the southern U.S.
- Barley stripe rust is severe on susceptible lines in a Sacramento, California nursery.

In the southern U.S., the winter-sown small grain crop is generally in good condition and 5-7 days behind normal crop development. In the central Great Plains, the crop is in good shape and behind normal maturity. In the northern spring grain growing area, planting has been slowed by the cool wet spring weather.

Wheat stem rust. As of April 16, no wheat stem rust has been reported in the U.S.

Wheat leaf rust. In mid-April, only light amounts of wheat leaf rust were being found throughout southern U.S. fields and plots. Light leaf rust has been found in plots in southern Georgia, southern Alabama, southern Louisiana and central Texas. Leaf rust has not yet been reported in North Carolina, which is much later than normal. This is lightest and latest leaf rust that has been observed in this southern region in many years. The cooler than normal weather in March has contributed to the slow rust development in the southern U.S.

Wheat stripe rust. In early April, wheat stripe rust was found in wheat fields in southern Texas (Bee and Medina Counties) and in south-central Texas (Brazos, Milam, and Williamson Counties). Disease severities ranged from trace amounts to approximately 80% infection. At high severities, stripe rust will significantly reduce yields and test weight. In early April, stripe rust caused complete losses in many of the cultivars in nurseries in south Texas. Jagger and TAM 201 were the two cultivars that showed the best stripe rust resistance in the Uvalde, southern Texas nursery. By mid-April, stripe rust was reported in central and north Texas. Rust was severe in a few central Texas fields which were planted early and in McCulloch county plots rust was light on the lower and middle leaves. Cool spring temperatures and unusually cool nights have allowed for more stripe rust development.

By early April, wheat stripe rust was severe in a few fields at the 1/4 berry maturity stage in southern Louisiana. The fields in this area have centers (foci)with 40-50% severities, while throughout the rest of the field there was light infection. The rust infection centers probably developed from rust spores that arrived 4-6 weeks ago. Stripe rust losses will be significant in many southern Louisiana fields.

In early April, wheat stripe rust was found in Central Valley, California plots. In the Davis, California nursery susceptible entries had 5-40% severities. In mid-April, the moist cool conditions were ideal for increase of rust in the Davis nursery.

Oat stem rust. In early April in a south Texas field, a light infection of oat stem rust was found and in mid-April, light stem rust was found in a central Texas field. There have been no reports of oat stem rust in Louisiana which is very unusual. The cooler than normal temperatures have slowed oat stem rust development throughout the southern U.S.

Oat crown rust. In early April, oat crown rust was severe in some fields in southern Texas and light in a few central Texas fields and in the Uvalde nursery. In mid-April, crown rust was severe on common oat and wild oat (*Avena fatua*) growing alongside the road sides in central Texas.

By the second week in April, crown rust was light in southern Louisiana varietal plots. The average cultivar was in the late boot stage, which was about 10 days later than normal.

Buckthorn. Buds on buckthorn, the alternate host for oat crown rust, have not started to break dormancy in the buckthorn nursery at St. Paul. This is later than normal for most years.

Barley stem rust. As of April 16, no barley stem rust has been reported in the U.S.

Barley leaf rust. In early April, light barley leaf rust was found in plots at Uvalde, Texas.

Stripe rust on barley. In early April, there was a low incidence and moderate severity of barley stripe rust in plots in several areas of the Central Valley and south-central coastal foothills of California. Barley was in the boot to early heading growth stage. In early April, in the large barley screening nursery in Davis, some very susceptible lines were expressing 50-80 severities which was from natural infection but many lines were still free of rust. In mid-April, rust was increasing throughout the nursery.

Rye rusts. As of April 16, there have been no reports of rye rust in the U.S.